U.S. Serial No. 10/086,775

Reply to Office Action of: 11/1/06

Family Number: P2002J025

Page 2

## AMENDMENTS TO THE SPECIFICATION

Delete paragraph [0014] replace with new paragraph [0014]

In the context of the embodiments of the present invention the Fischer-Tropsch derived hydrocarbon fuel may comprise either the direct liquid product ( $C_5+$ ) from the Fischer-Tropsch process, a converted Fischer-Tropsch product, or a blend of the foregoing. Thus, Fischer-Tropsch products boiling in the range of from about 25°C to about 450°C are suitable. Such fuels include that disclosed in U.S. 5,807,413 which patent is incorporated herein by reference. Also included are more conventional Fischer-Tropsch products such as those boiling, in the range of about 140°C to about 370°C and preferably in the range of about 160°C to about 350°C.

Delete paragraph [0021] replace with new paragraph [0021]

[0021] To achieve the requisite shearing it is particularly preferred to employ one or more static mixtures mixers such as those described in U.S. Patents 5,405,439; 5,236,624; and 4,832,747. In general more than one mixer will be used and the mixers will not be of the same size (length, diameter, number of internal elements). Rather the number, size and elements are selected to adjust mixing efficiency and emulsion particle size. In the practice of the present invention a combination of static mixtures mixers is selected to provide sufficient shearing of the hydrocarbon and water to produce an emulsion having particle sizes predominantly 1 micron or less and less shearing than that which would produce a "gel".

Delete paragraph [0026] replace with new paragraph [0026]

[0026] The performance of the emulsified Fischer-Tropsch fuel of Example 1 was compared to the same but not emulsified Fischer-Tropsch diesel fuel and to Swedish Class 1 Diesel fuel using a Caterpillar 1Y 540 single cylinder heavy duty Research

U.S. Scrial No. 10/086,775

Reply to Office Action of: 11/1/06

Family Number: P2002J025

Page 3

engine. Two conditions were measured, low load (1500 rpm, 60 Nn torque and 3.0 bar BMEP) and medium load (1500 rpm, 110 Nm torques and 5.5 bar BMEP).

Delete paragraph [0031], replace with new paragraph [0031]

[0031] In Figures 4 and 5 the  $Pm/NO_X$  performance of the fuels is plotted against change in spark timing. As can be seen in the case of the FTF and Swedish elaim Class 1 fuels one can retard the timing to lower the  $NO_X$  emissions.